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| 10/624,356 | 07/21/2003 | Aaron Scott Lukas | 06336P USA | 7682 |

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| EXAMINER |
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PADGETT, MARIANNE L

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| ART UNIT | PAPER NUMBER |
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1762

DATE MAILED: 05/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/624,356

Applicant(s)

LUKAS ET AL.

Examiner

Marianne L. Padgett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/23/2006 & 4/11/2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29,32-35 and 37-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29,32-35 and 37-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/11/6.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

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1. The IDS of 4/11/2006 is made of record. It is noted that the claims of copending application SN 10/624357 have been amended, such that they are now directed solely to composition claims, hence the obviousness double patenting rejection of section 7 of the 9/21/2005 action has been removed.

The amendments to the specification of 2/23/2006 are acceptable, as is applicants cited support therefore.

Applicants' amendments to the claims have removed the majority of the 112 second rejections thereover & objections for in proper dependence, however some concerning relative terms remain. It is noted that applicants comments concerning the scope of claims 2-3, explicitly stating that the further treatments therein can be performed before, during, or after the exposing step, with cited support therefore, clarifies this issue by clearly stating applicants' intent on the record.

The addition of "silicon-based..." to independent claims 1, 37 & 38 removes a rejection over Ruepping (6,346,300 B1 or Pacht et al (6,174,932 B1), in view of McCann et al (4,303,695).

2. Claims 2, 8-9 & 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The relative terms in these claims remain rejected as previously discussed in the 9/21/2005 action, for reasons discussed therein, further noting that applicant's discussions on page 12-13 other 2/23/2006 remarks fail to suggest or provide support for a scope for these relative ranges, or otherwise state on the record that these descriptive terms are not intend to represent a specific range, hence this rejections are maintained.

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA

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1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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4. Claims 1-29, 32, 35 & 37-45 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 2-12, 14-26, 31, 33-34, 39-45 & 50-62 of copending Application No. 10/295,568. Although the conflicting claims are not identical, they are not patentably distinct from each other because, while options are claimed in some different orders, and independent claims have varied emphases on energy source used with the broader photon source of (295,568) encompassing the UV of the present case, all the same options are present in each set of claims, thus creating obvious variations, as discussed in section 6 of the 9/21/2005 rejection. The amendment to present claims to explicitly include "silicon-based..." independent claims 1, 37 & 38 does not change this rejection, especially considering claim 42 was already more limited than that. It is also noted that a reference or claims need not explicitly mention a limitation, where the content of that limitation would reasonably be expected to be encompassed by the teachings/limitations, as has been indicated previously.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

5. Claims 1-8, 10-15, 22, 25-28, 32-34, 37 and 41-45 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 2-3, 7-14, 16, 19-26 and 39-45 of copending Application No. 10/379,466. Although the conflicting claims are not identical, they are not patentably distinct from each other because copending case 10/624,375 which is the CIP child of 10/379,466, and discussed in section 7-8 of the 9/21/2005 action, has claim substantially the same subject matter in the claims as its parent, hence the reasons for obviousness are the same. It is also noted that this copending application has had a notice of allowance issued, hence can be expected to shortly become a non-provisional rejection.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

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6. Claims 1-13, 15-16, 25-29, 32- 35 & 37 -45 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-14, 20-22, 24-27 and 30 of copending Application No. 10/842,503. Although the conflicting claims are not identical, they are not patentably distinct from each other because while various limitations are claimed in different orders, and with varying degrees of emphasis, the process limitations of these claims overlap in their generics and specific requirements, such that they are obvious variations on each other for reasons as discussed in section 9 in the 9/21/2005 action.

7. Claims 1-16, 25-29, 32-35, 37 and 42-45 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-5, 6-8, 13, 27-30 and 39 of copending Application No. 10/404,190. Although the conflicting claims are not identical, they are not patentably distinct from each other because while various limitations are claimed in different orders, and with varying degrees of emphasis, the process limitations of these claims overlap in their generics and specific requirements, such that they are obvious variations on each other for reason as discussed in section 10 of the 9/21/2005 action.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

8. Claims 1-29, 32- 35 and 37-45 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6, 8-10, 13, 15, 17-18, 20, 22-23 and 61-67 of copending Application No. 10/409,468. Although the conflicting claims are not identical, they are not patentably distinct from each other because again, the various limitations in the two applications are claimed in different orders with different emphasizes and phraseology but overlapping generic and specific requirements, creating obvious variations for reasons as discussed in section 11 of the 9/21/2005 action.

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This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

9. Claims 1-29, 32-35 & 37-45 rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-6, 8-10, 15-18, 33-35, 37-44 (45-46), 47-48 and 50 of U.S. Patent No. 6,846,515. Although the conflicting claims are not identical, they are not patentably distinct from each other because for reasons as stated in sections 9-12 of the 9/21/2005 action, noting that this Patton issued version of SN 10/150798 provisionally rejected in section 12 of the last action.

10. Claims 1-12, 14-15, 17-30, 32-35 & 37-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raman et al (5,935,646), in view of Albano et al (2003/0054115 A1), discussed in sections 13 & 15 of the 9/21/2005 action.

These references are inclusive of silicon based structure forming materials hence this addition to the independent claims does not remove this rejection, especially considering previously noted teachings concerning the lack of Si-OH when taught reducing atmospheres are used.

11. Claims 1-4, 10, 12-13, 15, 17, 26-29, 32-35, 37-40 are rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Nakata et al (2003/0003288 A1= PN 6,780,498), as discussed in section 17 of the 9/21/2005 action.

Claims 5-9, 11, 16 & 18-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakata et al), as discussed in section 17 of the 9/21/2005 action.

The examiner disagrees with applicant's assessment of Nakata et al, as paragraphs [0017-18] clearly set forth the problem of highly hygroscopic SiOH groups, with the following [0019] in the summary explicitly stating that the present invention solves the above mentioned several problems in the following [0020] noting it solves the problem of highly hygroscopic characteristics in conventional porous films, i.e. SiOH groups. Besides the indication of the undesirability of the SiOH groups, the previously cited [0051 & 53] which indicate the formation of resultant groups other than this undesired

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one would reasonably indicate that the undesired hygroscopic groups are not formed, and it would be further or alternatively obvious to avoid their formation due to the clear teaching of their undesirability, hence applicant's arguments are not convincing.

12. Claims 1-29, 32-35 and 37-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raman et al (5,935,646), in view of Albano et al (2003/0054115 A1) as applied to claims 1-12, 14-19, 17-29, 32-35 and 37-41 above, and further in view of Nakata et al as discussed in sections 17-18 of the 9/21/2005 action & above, which remains.

13. It appears that with filing of appropriate terminal disclaimers for above obviousness double patenting rejections that the claims of 42-45 would be allowable, pending requisite update of the search at the time of their filing.

14. Applicant's arguments filed 2/23/2006 and discussed above have been fully considered but they are not persuasive.

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marianne L. Padgett whose telephone number is (571) 272-1425. The examiner can normally be reached on M-F from about 8:30 a.m. to 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks, can be reached at (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MLP/dictation software

5/15/2006



MARIANNE PADGETT
PRIMARY EXAMINER